

Exploring political communication through data mining: A case study of the 2024 Indonesian presidential election

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Abstract

This study aims to explore the perceptions of social media users (netizens) towards the 2024 presidential candidates of the Republic of Indonesia through sentiment analysis and political communication expressions. Secondary data was collected using the Application Programming Interface (API) of social media platforms by utilising programming algorithms for the data collection and analysis process. The study population consisted of tweets discussing 2024 presidential candidates on platform X and YouTube, with a sample size of 50,000 data. The results revealed significant trends in netizen sentiment and communication patterns, providing implications regarding netizen political engagement and opinions. This study concludes that the dynamics of political discourse in Indonesia's digital realm have important implications to be understood in the context of general elections. In addition, this research contributes to emphasizing the important role of digital media in the political context, especially political communication.

Abstrak

Penelitian ini bertujuan untuk mengeksplorasi persepsi pengguna media sosial (netizen) terhadap calon presiden Republik Indonesia 2024 melalui analisis sentimen dan ekspresi komunikasi politik. Data sekunder dikumpulkan dengan menggunakan Application Programming Interface (API) platform media sosial dengan memanfaatkan algoritma pemrograman untuk proses pengumpulan dan analisis data. Populasi penelitian terdiri dari tweet yang membahas calon presiden 2024 di platform X dan YouTube, dengan jumlah sampel sebanyak 50.000 data. Hasil penelitian menunjukkan tren yang signifikan dalam sentimen netizen dan pola komunikasi, yang memberikan implikasi terkait keterlibatan dan opini politik netizen. Penelitian ini menyimpulkan bahwa dinamika wacana politik di ranah digital Indonesia memiliki implikasi yang penting untuk dipahami dalam konteks pemilihan umum. Selain itu, studi ini berkontribusi

Keywords:

sentiment analysis;
political communication;
presidential election;
social media; data mining

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dalam menegaskan peran penting media digital dalam konteks politik terutama komunikasi politik.

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INTRODUCTION

The growth of the internet and its users has been very fast in recent years. This is a huge potential where the internet is useful for people's lives. The internet makes it easier for people in their daily lives as a source of finding information to express themselves through various social media platforms (Dziuba et al, 2021; Mudhofi et al, 2024; Mudhofi & Karim, 2024). Based on data from the Central Statistics Agency (2019), the highest percentage of internet users comes from DKI Jakarta province, namely 73.46 per cent. This position is followed by Riau Islands with 65.02 per cent. Then DI Yogyakarta with 61.73 per cent.

Social media currently has a very rapid development and has changed the pattern of expressing communication of its users in recent years (He et al, 2020; Karim & Riyadi, 2024; Mudhofi, Adeni & Karim, 2024). In searching for information, users' choices are influenced by several factors, generally from the point of view of validity, quality, and convenience of services (Kim et al, 2021; Bhatt, 2020; Bi & Kim, 2020; Adeni et al, 2021).

X is one of the favourite social media in Indonesia (Nurlaila et al, 2020; Sudarmanti, 2021). Indonesia ranks sixth in terms of the number of users. X focuses on displaying live and breaking content for its users (Bubendorff et al, 2021; Skill et al, 2021). Many politicians, celebrities have X accounts as well as mass media companies, both print media, broadcast media, and online-based media (Zhang & Cozma, 2022; Mukhudwana, 2020; Fernández Gómez et al, 2021).

X users come from various circles and layers of society, causing variations in perceptions and sentiments conveyed at each appearance of existing content. This is evidenced by the number of X users tweeting about the 2024 presidential candidates (Robin, 2020). Many of the users expressed their responses regarding this matter. Not a few of them responded positively or even responded in the opposite way.

Although the 2024 presidential election (*pilpres*) still has a relatively long time, in recent times there have been volunteers from each figure introducing their candidates in a number of regions in the country, increasing electability is one of the reasons.

X is one of the social media that is widely used by certain groups in disseminating information about presidential candidates in the nomination of future state leaders. Tweets or information that exist are not always positive or negative, in certain conditions the tweets shared are excessive and sometimes drop the other party. Not a few volunteers

or supporters of prospective candidates try to share information in order to increase electability as well as some tweets that contain elements of dropping.

This research involves big data in the form of tweets in X in the form of netizen communication patterns towards presidential candidates known to the public. Therefore, one of the analyses that can be used is the use of data mining methods with a text mining approach that is expected to define the perception of X users. This method is used to extract information from X through the identification and exploration of interesting patterns, using text mining can find out the grouping of users' opinions.

METHODS

The population used in this study are tweets or perceptions of netizens in X regarding Indonesia's 2024 presidential candidates. The sample or default number for running the programme used in this study is 50,000 data.

The variables used in this study are shown in table 1, the following is an explanation and operational definition of the research:

Table 1 operational definition of research

Variables	Definition
Tweet	X users' (netizens') perceptions of presidential candidates.
Comment	YouTube users' (netizens) perceptions of presidential candidates.
Labelled data	Score for each text according to the positive and negative word directory.
Classification	Sentiment text that has been categorized

The data analyzed is a collection of tweets about mainstream media regarding 2024 presidential candidates. The stages are collecting tweets on X and comments on YouTube, cleaning tweets, converting tweets into word form, and finally, the word analysis process. Furthermore, the analysis steps are as follows: *first*, retrieve tweets and comments using the API (by entering keywords related to 2024 presidential candidates, saving the crawled data from both X accounts, and classifying tweets into positive or negative sentiments). *Second*, perform text preprocessing, which includes (cleansing, which removes usernames, hashtags, RTs, blank lines, punctuation, excess spaces, and URLs; performing case folding, which converts all characters to lowercase; performing stemming, which converts words into root words; performing stop-words). *Third*, tweet data is transformed into word occurrence frequency using TF-IDF. *Fourth*, perform topic modeling using the Latent Dirichlet Allocation method (by determining the number of topics and a number of iterations; modeling topics based on the number of topics with coherence values).



Figure 2 Tweets about Ganjar Pranowo

These results indicate that many public X users are discussing the presidential election both by survey institutions and netizens comparing Ganjar Pranowo with other presidential candidates which can be seen from smaller words such as the words "support", "sahabat Ganjar", "unity", "PDIP" due to the virality of Ganjar Pranowo on social media. Apart from that, the positive value of the X user community can be seen from the sentiment classification results in Figure 2. It shows that 1116 tweets fall into the negative sentiment category and 7542 fall into the positive sentiment category. Figure 2 is one of the tweets that fall into the positive and negative categories: "*emak-emak militant for Ganjar Pranowo in the upcoming 2024 presidential election, as well as the distribution of door prizes. Yuk Sahabat! Don't forget to kepo... https://t.co/kxiZfxnD9n*".

YouTube

This section will take three samples of videos on Youtube regarding Ganjar Pranowo's declaration, then conduct sentiment analysis on *netizen* comments from the three videos.

- a. <https://www.youtube.com/watch?v=JNZuwbQXLyg>

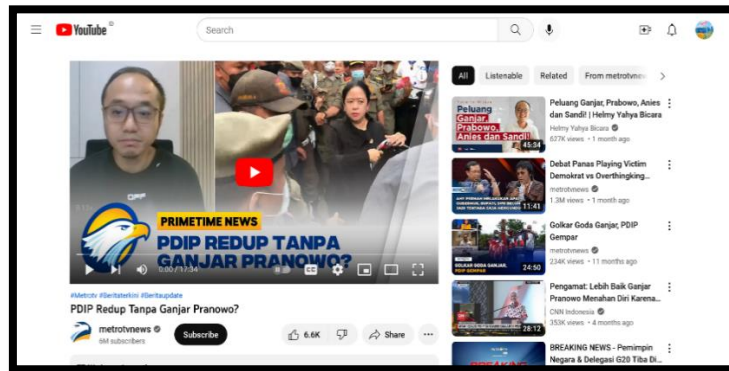


Figure 3 Ganjar Pranowo's first video in mainstream media

Figure 3 is the first video about Ganjar Pranowo in mainstream media, this video was chosen because it received many visitors and comments from *netizens*. Figure 4 is the Word cloud data of Ganjar Pranowo in the first sample video on YouTube, the results show the words that often appear in each sentiment category. The words that appear most often are the words "PDIP", "Puan", "people", "president", "Mega", "party", "Jokowi", and others become the most written words in the sample video. This is indicated by the size of the word that has a larger size than other word clouds.



Figure 4 Ganjar Pranowo word cloud in the first sample video on YouTube

Figure 5 shows the emotional reactions of netizens who responded to the first sample video. Emotional reactions are divided into eight categories, namely *trust*, *sadness*, *joy*, *anticipation*, *anger*, *fear*, *surprise*, and *disgust*. The results indicated that the YouTube user public gave an emotion of 27.85 per cent *trust* on the topic of the first video sample which was discussing PDIP would be dim if it did not nominate Ganjar Pranowo as a candidate for the 2024 presidential candidate.

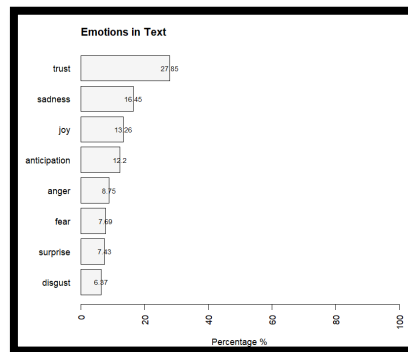


Figure 5 Analysis of *emotions* from the first video sample

In addition, YouTube *netizens* rate more positively as seen from Figure 6 sentiment classification results. Figure 6 shows that 70 comments fall into the negative sentiment category and 156 fall into the positive sentiment category.

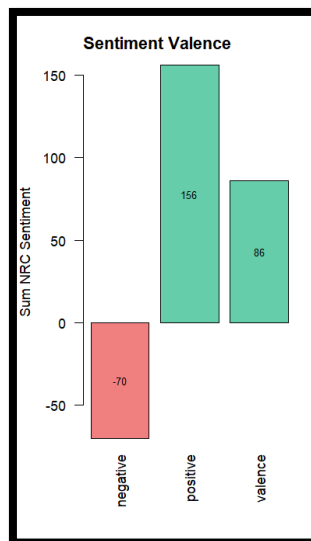


Figure 6 Sentiment analysis of the first video sample

per cent to 12.77 per cent on the topic of the second video sample which is discussing PDIP inviting Ganjar Pranowo if he wants to run as a 2024 presidential candidate through another party.

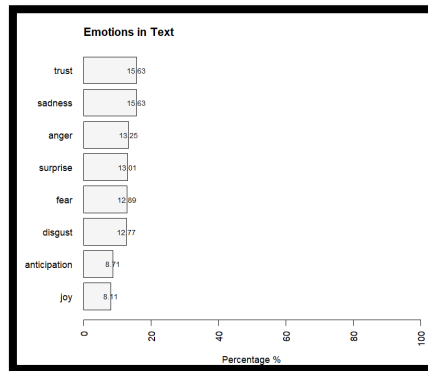


Figure 9 Analysis of *emotions* from the second video sample

In addition, YouTube *netizens* rate more positively as seen from Figure 9 sentiment classification results. Figure 10 shows that 153 comments fall into the negative sentiment category and 190 fall into the positive sentiment category.

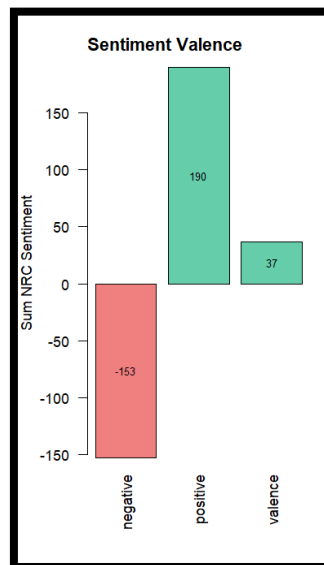


Figure 10 Sentiment analysis of the second video sample

- c. <https://www.youtube.com/watch?v=lihu69pjy28>



Figure 11 Ganjar Pranowo's third video in mainstream media

Figure 11 displays the third video about Ganjar Pranowo in the mainstream media, this video was chosen because it displays Ganjar Pranowo's interview in the mainstream media, the interview is related to Ganjar Pranowo's readiness to become a candidate for the 2024 presidential candidate. Figure 12 is the Word cloud data of Ganjar Pranowo on the third video sample of YouTube, the results show the words that often appear in each sentiment category. The words that appear most often are the words "PDIP", "presidential candidate", "people", "president", "Mega", "party", "Jokowi", and others become the most written words in the sample video. This is indicated by the size of the word that has a larger size than other word clouds.

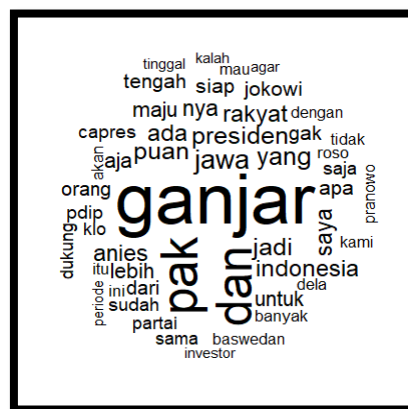


Figure 12 Ganjar Pranowo's word cloud on the third YouTube video sample

Figure 13 shows the emotional reactions of netizens who responded to the third video sample. Emotional reactions are divided into eight categories, namely *trust*, *sadness*, *joy*, *anticipation*, *anger*, *fear*, *surprise*, and *disgust*. The results indicated that the

YouTube public gave 27.78 per cent *trust* to the topic of the third video sample which was discussing Ganjar Pranowo's readiness to run as a candidate for the 2024 presidential election.

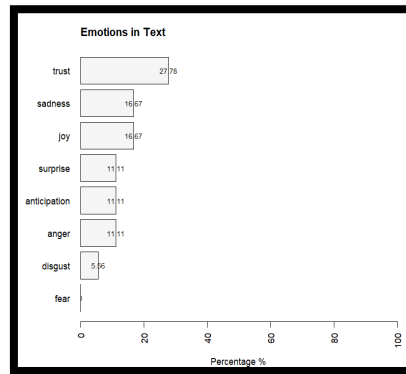


Figure 13 Analysis of *emotions* from the third video sample

In addition, YouTube *netizens* rate more positively as seen from Figure 4.16 sentiment classification results. Figure 14 displays as many as 1 comment in the negative sentiment category and 5 in the positive sentiment category.

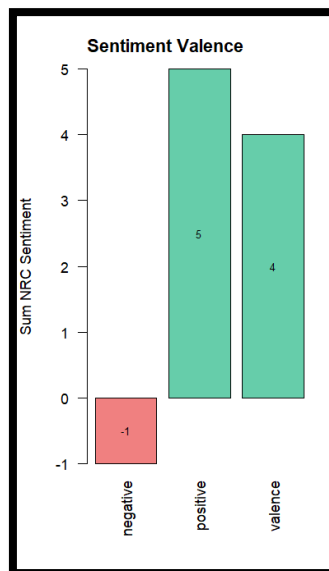


Figure 14 Sentiment analysis of the third video sample

Anies Baswedan X

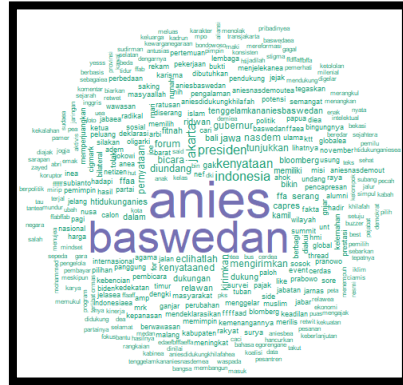


Figure 15 Anies Baswedan word cloud at X

Figure 15 is the Anies Baswedan data word cloud showing the words that often appear in each sentiment category. The words that appear most often in positive sentiments are the words "president", "Jakarta", "presidential candidate", "Nasdem", "Ganjar Pranowo", "Ridwan Kamil", "governor", and others being the words most tweeted by X users. This is indicated by the size of the word that has a larger size than other word clouds.

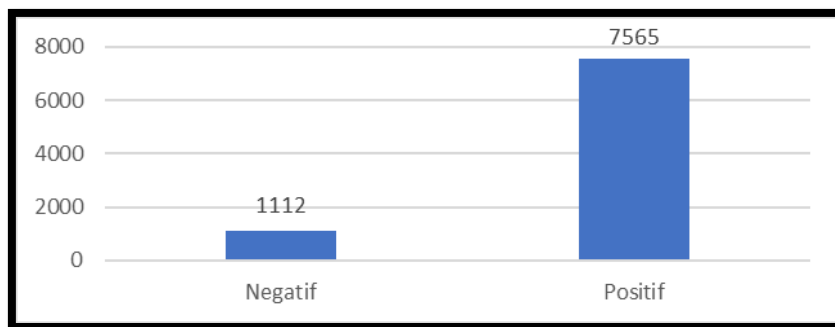


Figure 16 Sentiment classification results of Anies Baswedan analysis

In addition, the X user public judges positively and negatively as seen from Figure 16 sentiment classification results. Figure 17 shows that 1112 tweets fall into the negative sentiment category and 7565 fall into the positive sentiment category.



Figure 17 Positive tweets about Anies Baswedan

These results indicate that many public X users are discussing the presidential election both by survey institutions and netizens comparing Ganjar Pranowo with other presidential candidates which can be seen from smaller words such as the words "Ganjar Pranowo", "Ridwan Kamil", "Capres", "Nasdem" due to the virality of Anies Baswedan on social media.

Figure 18 is one of the tweets in the negative category: "*Anies Baswedan is supported by former corruptors from the Nasdem party*". The tweet even includes the hashtag #DrownAniesBaswedan.



Figure 18 Negative tweets about Anies Baswedan

YouTube

- a. <https://www.youtube.com/watch?v=ltz7AmGq6Z0>



Figure 19 Anies Baswedan's first video in mainstream media

Figure 19 shows the first video about Anies Baswedan in the mainstream media, this video was chosen because it shows Anies Baswedan's declaration by the National Democratic Party (Nasdem) in the mainstream media, the declaration is related to Anies Baswedan's readiness to become a 2024 presidential candidate from the Nasdem party. Figure 20 is the Anies Baswedan data word cloud on the first sample video on YouTube, the results show the words that often appear in each sentimentu dengan. The words that appear most often are the words "Nasdem", "Ganjar", "Prabowo", "Surya Paloh", "presidential candidate", "leader", "Indonesia", and others being the most written words in the sample video. This is indicated by the size of the word that has a larger size than other word clouds.



Figure 20 Anies Baswedan word cloud in the first sample video on YouTube

Figure 21 shows the emotional reactions of netizens who responded to Anies Baswedan's first video sample on Youtube. Emotional reactions are divided into eight categories, namely *trust*, *sadness*, *joy*, anticipation, *anger*, *fear*, *surprise*, and disgust. The

results indicate that the public of YouTube users give emotions as much as 15.52 per cent *trust* in the topic of the third video sample which is discussing Anies Baswedan's declaration by the Nasdem party to run as a candidate for the 2024 presidential candidate.

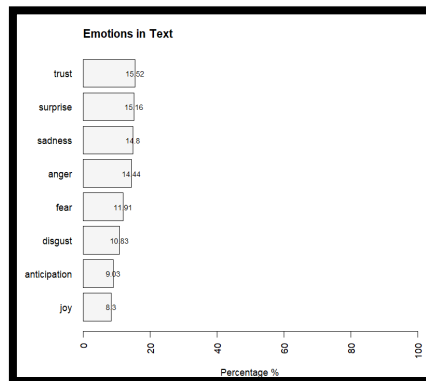


Figure 21 Analysis of *emotions* from Anies Baswedan's first video sample

In addition, YouTube *netizens* rate more positively as seen from Figure 4.24 sentiment classification results. Figure 22 displays 51 comments in the negative sentiment category and 68 in the positive sentiment category.

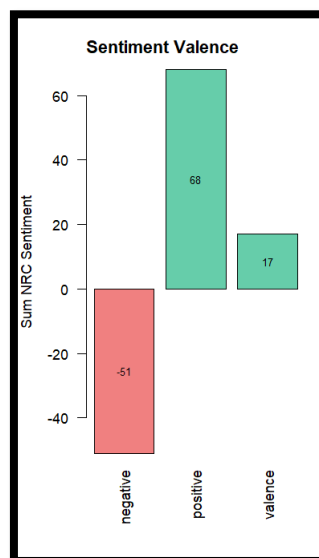


Figure 22 Sentiment analysis of Anies Baswedan's first video sample

- b. <https://www.youtube.com/watch?v=pmx3NfGShv8>



Figure 23 Anies Baswedan's second video in mainstream media

Figure 23 shows the second video about Anies Baswedan in the mainstream media, this video was chosen because it shows Anies Baswedan's declaration by the National Democratic Party (Nasdem) in the mainstream media, the declaration is related to Anies Baswedan's readiness to become a 2024 presidential candidate from the Nasdem party where the general chairman of the Nasdem party conveyed his narrative that the interests of the nation are above the interests of the party. Figure 24 is the Anies Baswedan data word cloud in the second sample video on YouTube, the results show words that often appear in each sentiment category. The words that appear most often are the words "Nasdem", "president", "nation", "interests", "presidential candidate", "smart", "Indonesia", and others being the most written words in the sample video. This is indicated by the size of the word that has a larger size than other word clouds.



Figure 24 Anies Baswedan word cloud in the second sample video on YouTube

Figure 25 shows the emotional reactions of netizens who responded to Anies Baswedan's second video sample on YouTube. Emotional reactions are divided into eight categories, namely *trust* (*trust*), *sadness* (*sad*), *joy* (*like*), *anticipation* (*anticipation*), *anger* (*anger*), *fear* (*worry*), *surprise* (*surprise*), *disgust* (*disgust*). The results indicate that the YouTube user public gives emotions as much as 18.13 per cent *trust in* the topic of the third video sample which is discussing Anies Baswedan's declaration by the Nasdem party to run as a candidate for the 2024 presidential candidate.

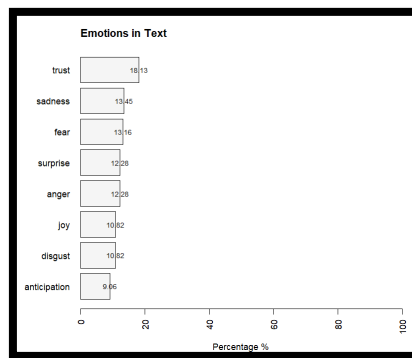


Figure 25 Analysis of *emotions* from Anies Baswedan's second video sample

In addition, YouTube *netizens* rate more positively as seen from Figure 26 sentiment classification results. Figure 26 displays as many as 53 comments in the negative sentiment category and 88 in the positive sentiment category.

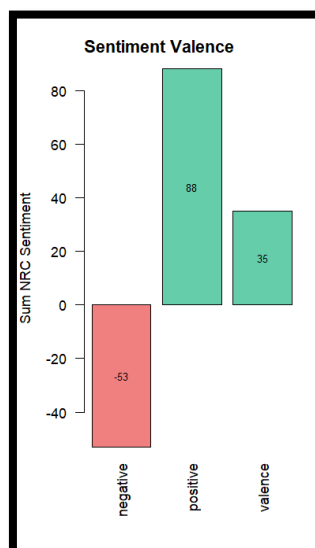


Figure 26 Sentiment analysis of Anies Baswedan's second video sample

- c. <https://www.youtube.com/watch?v=xPJ0VjLeg8>



Figure 27 Anies Baswedan's third video in mainstream media

Figure 27 shows the third video about Anies Baswedan in the mainstream media, this video was chosen because it shows Anies Baswedan's speech at the National Democratic Party (Nasdem) anniversary celebration in the mainstream media, the speech is related to the narrative delivered by Anies Baswedan as a candidate for the 2024 presidential candidate from the Nasdem party. Figure 28 is the Anies Baswedan data word cloud on the third YouTube video sample, the results show words that often appear in each sentiment category. The words that appear most often are the words "Nasdem", "president", "word", "leader", "jakarta", "smart", "Indonesia", and others become the most written words in the video sample. This is indicated by the size of the word that has a larger size than other word clouds.

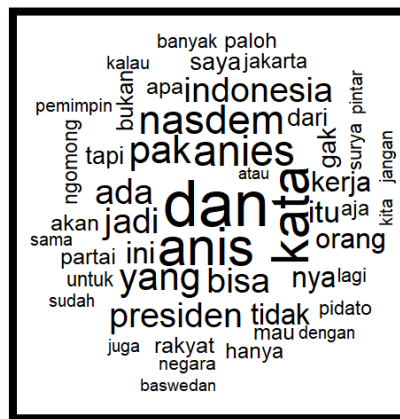


Figure 28 Anies Baswedan word cloud in the second sample YouTube video

Figure 29 shows the emotional reactions of netizens who responded to Anies Baswedan's third video sample on Youtube. Emotional reactions are divided into eight categories, namely *trust* (*trust*), *sadness* (*sad*), *joy* (*like*), *anticipation* (*anticipation*), *anger*

(anger), *fear* (worry), *surprise* (surprise), *disgust* (disgust). The results indicated that the YouTube public gave 29.44 per cent *trust* to the topic of the third video sample, which was discussing Anies Baswedan's declaration by the Nasdem party to run as a candidate for the 2024 presidential election.

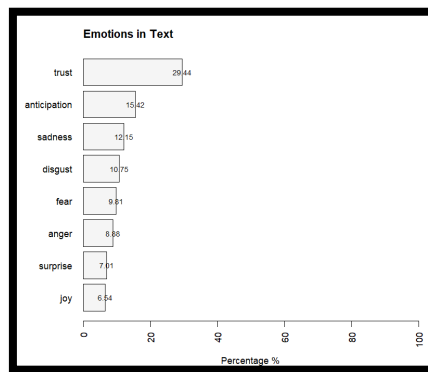


Figure 29 Analysis of *emotions* from Anies Baswedan's third video sample

In addition, YouTube *netizens* rate more positively as seen from Figure 30 sentiment classification results. Figure 30 shows that 43 comments fall into the negative sentiment category and 90 fall into the positive sentiment category.

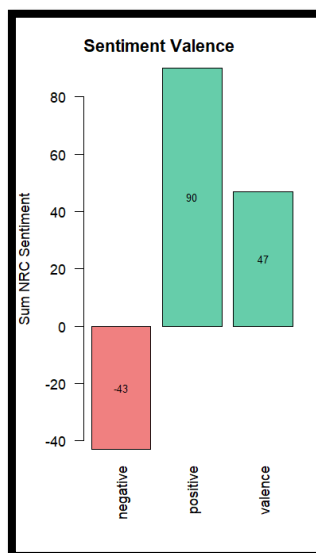


Figure 30 Sentiment analysis of Anies Baswedan's third video sample

Prabowo Subianto

1. <https://www.youtube.com/watch?v=RdUzmEyUyWA>

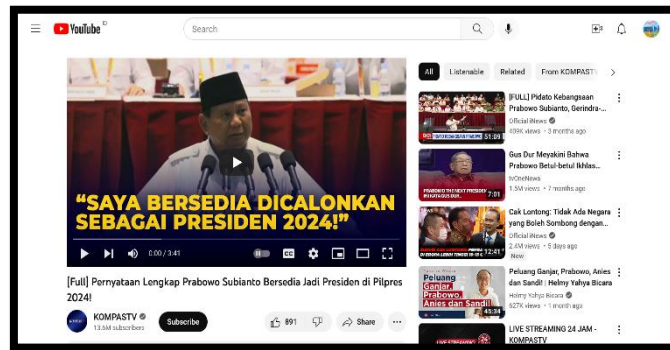


Figure 31 Prabowo Subianto's first video in mainstream media

Figure 31 shows the first video of Prabowo Subianto in mainstream media, this video was chosen because it shows Prabowo Subianto giving a statement that he is willing to be president in the 2024 presidential election in front of Gerindra party cadres, the speech is related to the speech delivered by Prabowo Subianto who stated that he is ready to be a candidate for the 2024 presidential election from Gerindra party. Figure 32 is the word cloud data of Prabowo Subianto in the first sample video on YouTube, the result shows the words that often appear in each sentiment category. The words that appear most frequently are "Ganjar", "presidential candidate", "win", and others, which are the most written words in the sample video. This is indicated by the size of the word that has a larger size than other word clouds.



Figure 32 Prabowo Subianto word cloud in the first sample video on YouTube

Figure 33 displays the emotional reactions of netizens who responded to the first Prabowo Subianto video sample on Youtube. Emotional reactions are divided into eight

categories, namely *trust*, *sadness*, *joy*, *anticipation*, *anger*, *fear*, *surprise*, and *disgust*. The results indicated that the public of YouTube users gave an emotion of 29.27 per cent *trust* to the topic of the first video sample which was discussing Prabowo Subianto's readiness to run as a candidate for the 2024 presidential election.

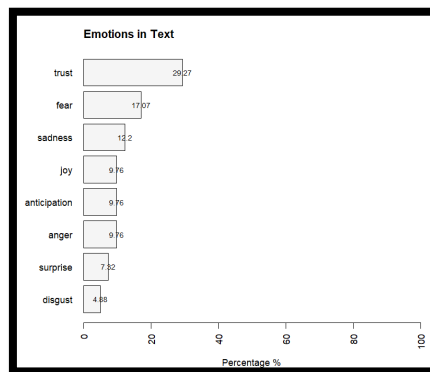


Figure 33 Analysis of *emotions* from the first video sample of Prabowo Subianto

In addition, YouTube *netizens* rate more positively as seen from Figure 34 sentiment classification results. Figure 34 displays as many as 7 comments in the negative sentiment category and 18 in the positive sentiment category.

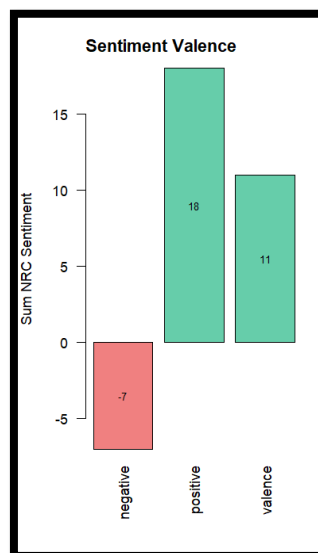


Figure 34 Sentiment analysis of the first Prabowo Subianto video sample

Figure 37 displays the emotional reactions of netizens who responded to Prabowo Subianto's first video sample on Youtube. Emotional reactions are divided into eight categories, namely *trust*, *sadness*, *joy*, *anticipation*, *anger*, *fear*, *surprise*, and *disgust*. The results indicated that the public of YouTube users gave an emotion of 28.95 per cent *trust* to the topic of the first video sample which was discussing the president's support for Prabowo Subianto in running as a candidate for the 2024 presidential election.

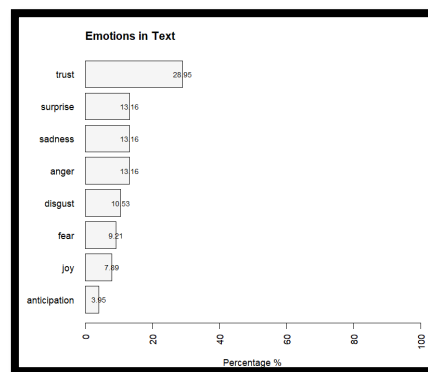


Figure 37 Analysis of *emotions* from the second Prabowo Subianto video sample

In addition, YouTube *netizens* rate more positively as seen from Figure 4.40 sentiment classification results. Figure 38 displays as many as 17 comments in the negative sentiment category and 31 in the positive sentiment category.

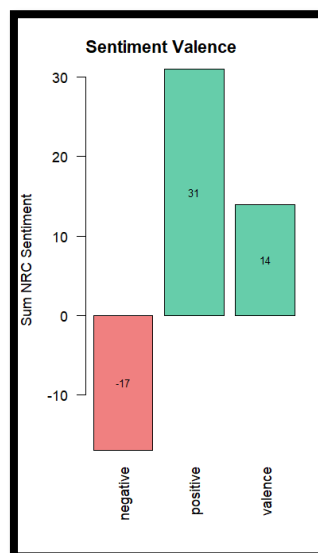


Figure 38 Sentiment analysis of the second Prabowo Subianto video sample

Puan Maharani

1. <https://www.youtube.com/watch?v=7BKc3MxGSCY>

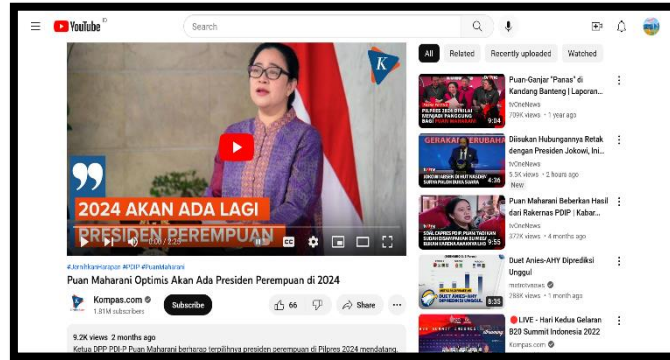


Figure 39 Puan Maharani's first video in mainstream media

Figure 39 shows the first video about Puan Maharani in mainstream media, this video was chosen because it shows Puan Maharani who made a statement that in 2024 there will be another female president, the statement is related to Puan Maharani who stated that she was ready as a candidate for the 2024 presidential candidate from the Indonesian Democratic Party of Struggle (PDIP). Figure 40 is the Puan Maharani data word cloud on the first YouTube video sample, the results show words that often appear in each sentiment category. The words that appear most often in the words "president", "woman", "Ganjar", and others are the most written words in the video sample. This is indicated by the size of the word that has a larger size than other word clouds.

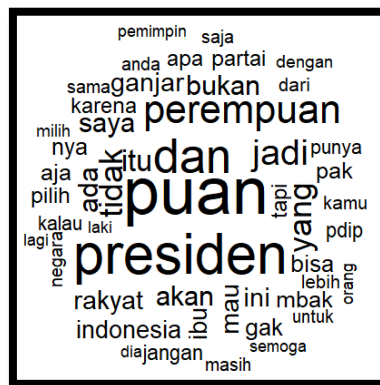


Figure 40 Puan Maharani word cloud in the first sample video on YouTube

Figure 41 displays the emotional reactions of netizens who responded to Puan Maharani's first video sample on YouTube. Emotional reactions are divided into eight categories, namely *trust*, *sadness*, *joy*, *anticipation*, *anger*, *fear*, *surprise*, and *disgust*. The

results indicate that the public of YouTube users gave an emotion of 28 per cent *trust* in the topic of the first video sample which was discussing that there would be a female president in 2024.

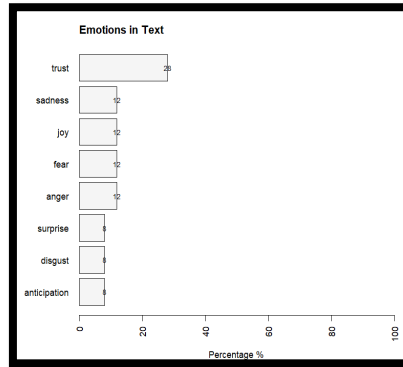


Figure 41 Analysis of *emotions* from the first video sample of Puan Maharani

In addition, YouTube *netizens* rate more positively as seen from Figure 42 sentiment classification results. Figure 42 displays as many as 6 comments in the negative sentiment category and 14 in the positive sentiment category.

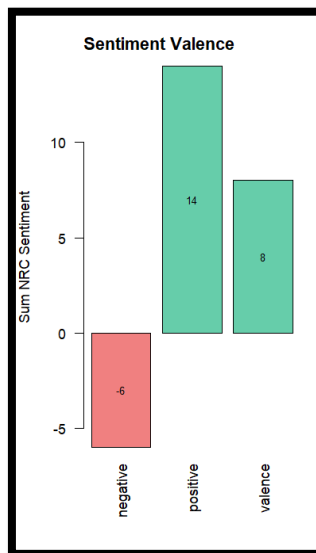


Figure 42 Sentiment analysis of the first video sample of Puan Maharani

- 2. https://www.youtube.com/watch?v=ftJ_BNFyBIE



Figure 43 Second video about Puan Maharani in mainstream media

Figure 43 displays the second video about Puan Maharani on mainstream media, this video was chosen because it displays the escalation of the 2024 presidential election at PDIP according to Ganjar Pranowo stating that he is ready to become a candidate for the 2024 presidential candidate, where Puan Maharani is a strong candidate for the 2024 presidential candidate from PDIP which is often conveyed by party officials. Figure 44 is the Puan Maharani data word cloud on the second YouTube video sample, the results show words that often appear in each sentiment category. The words that appear most often in the words "Ganjar", "PDIP", "presidential candidate", and others are the most written words in the video sample. This is indicated by the size of the word that has a larger size than other word clouds.



Figure 44 Puan Maharani word cloud in the second sample video on YouTube

Figure 45 displays the emotional reactions of netizens who responded to Puan Maharani's second video sample on YouTube. Emotional reactions are divided into eight

categories, namely *trust*, *sadness*, *joy*, *anticipation*, *anger*, *fear*, *surprise*, and *disgust*. The results indicate that the YouTube user public gives an emotion of 17.95 per cent *trust* in the topic of the second video sample which is discussing the escalation of the 2024 presidential election from PDIP.

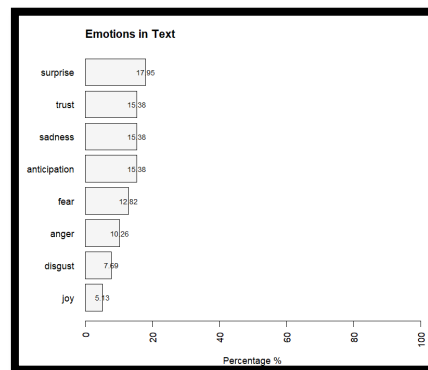


Figure 45 Analysis of *emotions* from the second video sample of Puan Maharani

In addition, YouTube *netizens* rate more positively as seen from Figure 4 sentiment classification results. Figure 46 displays as many as 10 comments in the negative sentiment category and 18 in the positive sentiment category.

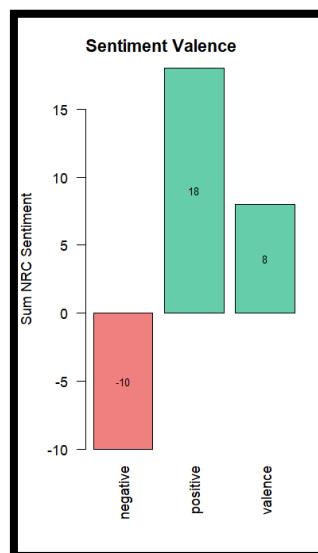


Figure 46 Sentiment analysis of the second video sample of Puan Maharani

Emotional reactions are divided into eight categories, namely *trust*, *sadness*, *joy*, *anticipation*, *anger*, *fear*, *surprise*, and *disgust*. The results indicated that the public of YouTube users gave an emotion of 22.71 per cent *trust* to the topic of the third video sample which was discussing Puan Maharani's meeting with Prabowo Subianto.

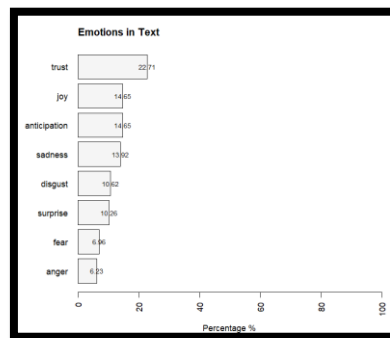


Figure 49 Analysis of *emotions* from the third video sample

In addition, YouTube *netizens* rate more positively as seen from Figure 50 sentiment classification results. Figure 50 displays 77 comments in the negative sentiment category and 142 in the positive sentiment category.

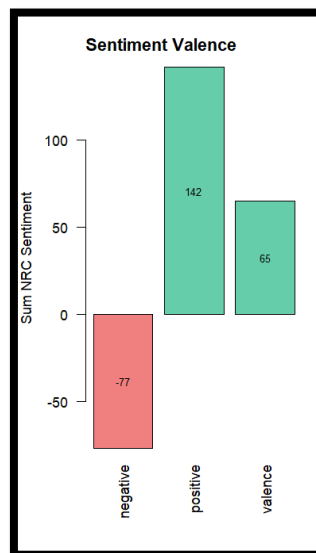


Figure 50 Sentiment analysis of the third video sample

This study emphasizes on the importance of social media in political contestation. Political communication has developed dynamically with various digital facilities. The

findings in this research also show how conventional political communication is starting to shift (Calderaro, 2018). If previously political communication was synonymous with full control by political figures, now, in the digital era, citizens (called netizens) have taken the most decisive part in the political stage, to discuss whatever they want regarding certain political figures (Noorikhsan, et.al, 2023).

CONCLUSION

Text-based social media *X* and video-based YouTube can be used to analyze trends in netizen opinions, whether it is to analyze a figure who is considered important in a field. Based on the findings in the previous section, it shows that the sentiments of social media users (netizens) towards the 2024 presidential candidates on both *X* and YouTube are generally positive. This study, however, has some limitations. This study is an initial study to look at tweets related to the names of 2024 presidential candidates. Another limitation is that we only took tweets on *X* and comments on YouTube according to the data even though we have set a sample of 50,000 tweets and 50,000 comments. As mentioned in the discussion, one or two important events during that time may dominate the tweets on *X* and comments on YouTube from users. A larger number of tweets and a longer collection time would help compensate for such issues. The study also found the use of only three popular videos from mainstream media YouTube channels for each of the 2024 presidential candidates as another limitation. Including subcategories within each of these categories may add to the richness of our content analysis results.

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